

## METHOD AND APPARATUS FOR LIGHTING A DISCHARGE LAMP

### Abstract of the Disclosure

A reliable and efficient circuit for lighting a discharge lamp is described. An inverter accepts a direct current supply voltage and outputs an alternating current lamp voltage to drive the discharge lamp at a relatively high frequency. In one embodiment, the inverter includes semiconductor switches in a full-bridge configuration, a transformer feedback circuit to control the semiconductor switches, and a series L-C resonant circuit. In one embodiment, the inverter includes semiconductor switches in a half-bridge configuration, a transformer feedback circuit to control the semiconductor switches, and a series L-C resonant circuit. The inverter can drive multiple discharge lamps in a parallel configuration. A bypass circuit can also be coupled across a cathode of the discharge lamp to extend the life of the discharge lamp. The bypass circuit activates when a lamp cathode wears out.

SSN-2793.DOC  
033104